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Terms	Documents
l13 and (gene adj expression)	44

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US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

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Search History

Today's Date: 7/18/2001

DB Name	Query	Hit Count	Set Name
USPT,PGPB,JPAB,EPAB,DWPI	l13 and (gene adj expression)	44	L14
USPT,PGPB,JPAB,EPAB,DWPI	l12 and l6	77	L13
USPT,PGPB,JPAB,EPAB,DWPI	cryopreserv$5 same (transduc$ or transfect$4 or transform$5)	142	L12
USPT,PGPB,JPAB,EPAB,DWPI	cryopreserv$5 and (transduc$ or transfect$4 or transform$5)	755	L11
USPT,PGPB,JPAB,EPAB,DWPI	cryopreserv$5 and (transduced adj cells)	27	L10
USPT,PGPB,JPAB,EPAB,DWPI	cryopreserv$5 same (transduced adj cells)	1	L9
USPT,PGPB,JPAB,EPAB,DWPI	l6 and l5	19	L8
USPT,PGPB,JPAB,EPAB,DWPI	l6 and l3	107	L7
USPT,PGPB,JPAB,EPAB,DWPI	@rlad<19951229	546402	L6
USPT,PGPB,JPAB,EPAB,DWPI	l3 and (stromal cells)	41	L5
USPT,PGPB,JPAB,EPAB,DWPI	l3 and cells	209	L4
USPT,PGPB,JPAB,EPAB,DWPI	cryopreserv$4 and (gene adj expression)	209	L3
USPT,PGPB,JPAB,EPAB,DWPI	"5849287"	4	L2
USPT	305856	6	L1

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NEWS 4	Feb 16	TOXLINE no longer being updated
NEWS 5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS 6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 7	May 07	DGENE Reload
NEWS 8	Jun 20	Published patent applications (A1) are now in USPATFULL
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=> e cryopreserve/ct
E#   FREQUENCY    AT      TERM
--   ---------    --      ----
E1           1            CRYOPRESERVATIVE SUPPLEMENT/CT
E2           2            CRYOPRESERVATIVES/CT
E3           0        --> CRYOPRESERVE/CT
E4         179            CRYOPRESERVED/CT
E5           1            CRYOPRESERVED ALLOGENEIC KERATINOCYTES/CT
E6           1            CRYOPRESERVED ALLOGRAFT/CT
E7           1            CRYOPRESERVED BONE MARROW/CT
E8           1            CRYOPRESERVED CADAVERIC SKIN ALLOGRAFTS/CT
E9           1            CRYOPRESERVED CELL TRANSFORMATION/CT
E10          1            CRYOPRESERVED DORMANT/CT
E11          1            CRYOPRESERVED FETAL LIVER HEMATOPOIETIC CELLS/CT
E12          1            CRYOPRESERVED FETAL LIVER HEMATOPOIETIC PROGENITOR
CEL
                          LS/CT

=> s e4, e6, e5, e7,e9, e11, e12
L1         185 (CRYOPRESERVED/CT OR "CRYOPRESERVED ALLOGRAFT"/CT OR
"CRYOPRESER
               VED ALLOGENEIC KERATINOCYTES"/CT OR "CRYOPRESERVED BONE
MARROW"/
               CT OR "CRYOPRESERVED CELL TRANSFORMATION"/CT OR "CRYOPRESERVED
               FETAL LIVER HEMATOPOIETIC CELLS"/CT OR "CRYOPRESERVED FETAL
               LIVER HEMATOPOIETIC PROGENITOR CELLS"/CT)

=> s l1 and transgene
L2           1 L1 AND TRANSGENE

=> s l1 and gene expression
L3           1 L1 AND GENE EXPRESSION

=> s preserved cells
L4         206 PRESERVED CELLS

=> s l4 and 1960-1995/py
   2 FILES SEARCHED...
L5         145 L4 AND 1960-1995/PY

=> s l5 and review
L6           3 L5 AND REVIEW

=> d l6, 1-3

L6   ANSWER 1 OF 3     MEDLINE
AN   81251909     MEDLINE
DN   81251909   PubMed ID: 6114608
TI   Masquerades of malignancy: a review of 4,241 aspirates from the
     breast.
AU   Kline T S
SO   ACTA CYTOLOGICA, (1981 May-Jun) 25 (3) 263-6.
     Journal code: 0LI; 0370307. ISSN: 0001-5547.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
```

GCSF-Flt

LA English
FS Priority Journals
EM 198109
ED Entered STN: 19900316
Last Updated on STN: 19950206
Entered Medline: 19810915

L6 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:368586 BIOSIS
DN BR37:47709
TI VIABILITY ASSAYS FOR **PRESERVED CELLS** TISSUES AND ORGANS.
AU PEGG D E
CS MRC MED. CRYOBIOL. GROUP, UNIV. DEP. SURGERY, DOUGLAS HOUSE, TRUMPINGTON ROAD, CAMBRIDGE CB2 2AH, UNITED KINGDOM.
SO Cryobiology, (1989) 26 (3), 212-231.
CODEN: CRYBAS. ISSN: 0011-2240.
FS BR; OLD
LA English

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS
AN 1989:549660 CAPLUS
DN 111:149660
TI Viability assays for **preserved cells**, tissues, and organs
AU Pegg, D. E.
CS MRC Med. Cryobiol. Group, Univ. Dep. Surg., Cambridge, CB2 2AH, UK
SO Cryobiology (**1989**), 26(3), 212-31
CODEN: CRYBAS; ISSN: 0011-2240
DT Journal; General Review
LA English

=> s viability and cryopreservation
L7 2473 VIABILITY AND CRYOPRESERVATION

=> s l7 and review
L8 47 L7 AND REVIEW

=> s l8 and 1980-1995/py
L9 16 L8 AND 1980-1995/PY

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L10 14 DUPLICATE REMOVE L9 (2 DUPLICATES REMOVED)

=> d l10 all,1-14

L10 ANSWER 1 OF 14 MEDLINE
AN 93262433 MEDLINE
DN 93262433 PubMed ID: 8493531
TI New challenges in human in vitro fertilization.
AU Winston R M; Handyside A H
CS Institute of Obstetrics and Gynaecology, Royal Postgraduate Medical School, Hammersmith Hospital, London, United Kingdom.
SO SCIENCE, **(1993 May 14)** 260 (5110) 932-6. Ref: 41

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Journal code: UJ7; 0404511. ISSN: 0036-8075.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199306
ED Entered STN: 19930625
Last Updated on STN: 19970203
Entered Medline: 19930615
AB This **review** assesses some scientific and ethical problems with human in vitro fertilization. Improved selection of viable embryos, better culture conditions, and greater understanding of the uterine environment will increase success and prevent multiple pregnancy. Further advances will also improve oocyte **cryopreservation**, in vitro maturation of oocytes, knowledge of sperm function, and sperm microinjection. Preimplantation diagnosis will help avoid genetic diseases and increase understanding of embryonic defects and the **viability** of zygotes. The greatest ethical problem with all these developments seems to be delivery of these complex treatments when health-care resources are increasingly limited.
CT Check Tags: Female; Human; Male; Support, Non-U.S. Gov't
Cryopreservation
Embryo
Embryo Transfer
*Fertilization in Vitro
Health Services Accessibility
Oocytes: PH, physiology
Oocytes: TR, transplantation
Prenatal Diagnosis
Spermatozoa: PH, physiology

L10 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS
AN 1994:26583 CAPLUS
DN 120:26583
TI Factors affecting the **viability** of fresh and cryopreserved embryos
AU Shelton, J. N.
CS John Curtin Sch. Med. Res., Aust. Natl. Univ., Canberra, Australia
SO Curr. Plant Sci. Biotechnol. Agric. (**1993**), 15(Biotechnology in Agriculture), 94-104
CODEN: CPBAE2; ISSN: 0924-1949
DT Journal; General Review
LA English
CC 9-0 (Biochemical Methods)
Section cross-reference(s): 13
AB A **review** with many refs. Assessment of embryo **viability**, donor factors, recipient factors, **viability** of the cryopreserved embryos are discussed.
ST embryo **viability cryopreservation review**
IT Embryo
(fresh and cryopreserved, **viability** of)

L10 ANSWER 3 OF 14 MEDLINE
AN 93121385 MEDLINE
DN 93121385 PubMed ID: 8418978

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TI Meniscal allografts.
AU Siegel M G; Roberts C S
CS Department of Orthopaedics, Deaconess Hospital, Cincinnati, Ohio.
SO CLINICS IN SPORTS MEDICINE, **(1993 Jan)** 12 (1) 59-80. Ref: 67
Journal code: CSM; 8112473. ISSN: 0278-5919.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199302
ED Entered STN: 19930226
Last Updated on STN: 19980206
Entered Medline: 19930211
AB Loss of the meniscus has been proved to be associated with increased joint pressures, mechanical changes, and ultimately hyaline cartilage degradation. Since the first arthritic changes following meniscectomy were appreciated, attempts have been made to alter and reverse the joint deterioration that occurs after removal of the knee fibrocartilage. Replacement of the fibrocartilage with either a prosthetic or biologic implant appears to be the only method of restoring normal joint anatomy. By inserting a meniscus substitute for the removed meniscus, the development of joint pathology should be avoided. This article focuses on the procedure of allogenic implants. Allogenic meniscal implants have been performed in humans for over 8 years. Recent clinical work has shown a rapid increase in the number of implants in the last 3 years with clinical **review** only now being presented. At present, the orthopedic surgeon has available cryopreserved, fresh-frozen, or frozen and irradiated tissue. Although much work has been performed in the animal with fresh-frozen tissue, the newly appreciated risk of disease transmission may require that all future implants be secondarily sterilized. Regardless of the type of implant, the early results of cell **viability** studies appear the same. Allogenic implants sustain new cellular ingrowth from the host and the DNA is replaced with host DNA. The ultimate success of this operation is not whether allogenic collagen can be transplanted into a host knee, but whether this tissue can be made to function and to preserve hyaline cartilage. Available data suggest that the technique being used to transplant the meniscus does not preserve normal meniscus function. These menisci may not function as they did in the donor. Additionally, few surgical techniques have been tested mechanically to compare meniscus function after transplantation. For these reasons, although transplant surgery for the meniscus remains an exciting and encouraging procedure to save the knee in a person who has had a total meniscectomy, the operation is currently being limited to those involved in study groups and investigational protocols. The long-term follow-up is at present limited or nonexistent. Objective parameters for evaluating posttransplant meniscus function are only now being collected and reviewed. Meniscal transplantation remains a cautiously optimistic treatment for the future.
CT Check Tags: Human

Arthroscopy
Biomechanics
Cryopreservation
Joint Diseases: DI, diagnosis
Joint Diseases: PA, pathology
Joint Diseases: SU, surgery
Menisci, Tibial: IN, injuries
Menisci, Tibial: PA, pathology
*Menisci, Tibial: TR, transplantation
Surgical Procedures, Operative: MT, methods
Transplantation, Homologous

L10 ANSWER 4 OF 14 MEDLINE
AN 95086850 MEDLINE
DN 95086850 PubMed ID: 1365030
TI Hematopoietic stem cell **cryopreservation**: a **review** of current techniques.
AU Rowley S D
CS Fred Hutchinson Cancer Research Center, Seattle, WA 98104.
NC CA15704 (NCI)
CA47748 (NCI)
CA55923 (NCI)
SO JOURNAL OF HEMATOTHERAPY, **(1992 Fall)** 1 (3) 233-50. Ref: 97
Journal code: B3T; 9306048. ISSN: 1061-6128.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199501
ED Entered STN: 19950126
Last Updated on STN: 19950126
Entered Medline: 19950117
AB Hematopoietic stem cells (HSC) can be stored for prolonged periods at cryogenic temperatures. The techniques currently used were derived from the initial report in 1949 of **cryopreservation** of bovine sperm in glycerol. The addition of this penetrating cryoprotectant protected the cells from the injury associated with ice formation. Current **cryopreservation** techniques (with minor variations) suspend cells in an aqueous solution of salts, protein, and one or more cryoprotectants.
Cells are frozen at slow rates and stored generally below -120 degrees C in mechanical freezers or nitrogen refrigerators. That these techniques are successful in maintaining HSC **viability** is evident from the engraftment of these cells in patients treated with marrow-lethal conditioning regimens. However, issues such as the composition of the cryoprotectant solution, cell concentration during freezing, cryoprotectant toxicity, and storage temperatures have not been adequately studied, primarily because of a lack of appropriate assays for HSC cryosurvival. HSC cryobiology will become an increasingly important subject as new HSC collection and processing techniques are developed. Improved cryosurvival of HSC using modified cryoprotectant solutions may improve engraftment kinetics and decrease the cost and morbidity of autologous transplantation.
CT Check Tags: Human; Support, U.S. Gov't, P.H.S.

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Bone Marrow: CY, cytology
Cell Survival
*Cryopreservation: MT, methods
Heat
*Hematopoietic Stem Cells
Hematopoietic Stem Cells: CY, cytology
Solutions
CN 0 (Solutions)

L10 ANSWER 5 OF 14 MEDLINE
AN 92069216 MEDLINE
DN 92069216 PubMed ID: 1958802
TI Human embryo research: ethics and recent progress.
AU Cohen J; Hotz R L
CS Cornell University Medical College, New York, New York.
SO CURRENT OPINION IN OBSTETRICS AND GYNECOLOGY, **(1991 Oct)** 3 (5) 678-84. Ref: 33
Journal code: A50; 9007264. ISSN: 1040-872X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199201
ED Entered STN: 19920124
Last Updated on STN: 19920124
Entered Medline: 19920107
AB This **review** evaluates recent developments in the application as well as legalization of human embryo research. A number of European countries, including the United Kingdom and Spain, have recently enacted comprehensive legislation to regulate embryo research. Research reviewed here was conducted either with the aim to alleviate certain medical conditions or to improve the low success rates of assisted reproductive technology. Research was usually conducted on embryos that were considered unfit for immediate transfer or unsuitable for **cryopreservation**. Research projects were aimed at 1) studying the metabolism of the embryo, 2) promoting embryonic **viability**, 3) assisting fertilization in patients with fertilization disorders, and 4) determining gene disorders in embryos from couples at risk for transmitting genetic disease.
CT Check Tags: Human
*Embryo
Embryo: GD, growth & development
Embryo: ME, metabolism
*Ethics, Medical
Europe
Fertilization in Vitro
Genetic Screening
Research: LJ, legislation & jurisprudence
*Research: ST, standards
Research: TD, trends
United States

L10 ANSWER 6 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1992:54734 BIOSIS
DN BA93:34709
TI IMPROVING FERTILIZATION AND EMBRYO QUALITY VIA CO-CULTURES.

GCSF-Flt

AU BONGSO A
CS DEP. OBSTETRICS GYNAECOLOGY, NATIONAL UNIVERSITY HOSPITAL, LOWER KENT RIDGE ROAD, SINGAPORE 0511.
SO SINGAPORE J OBSTET GYNAECOL, (1991) 22 (2), 40-44,46-49.
CODEN: SJOGDE. ISSN: 0129-3273.
FS BA; OLD
LA English
AB Despite more than a decade of experience, the success rate of in vitro fertilization (IVF) has remained stubbornly low. Two of the possible contributory causes are (i) the transfer of embryos of decreased **viability** and (ii) the replacement of 2-day old embryos into an uterine environment that would be more receptive to 5-day old embryos (blastocysts). A promising avenue for increasing pregnancy rates that could be carried to term is to replicate a key part of the human Fallopian tube in the laboratory for fertilization and growth of early human embryos. This paper describes the establishment, maintenance and behaviour of human ampullary cells in vitro and their role as co-cultures to yield increased fertilization rates and good-quality embryos of IVF programs. The specificity and **cryopreservation** of cultured human ampullary cells and the pregnancy rates using the co-culture system are also discussed. The mode of action of co-cultures is hypothesised and the future areas of research presented. While mimicking in vivo conditions in vitro, the ultimate aim is to freeze blastocysts generated from co-culture, thaw and then replace them in natural unstimulated cycles.
CC Cytology and Cytochemistry - Human *02508
External Effects - Temperature as a Primary Variable - Cold 10616
Reproductive System - General; Methods *16501
Reproductive System - Physiology and Biochemistry *16504
Temperature: Its Measurement, Effects and Regulation - General Measurement and Methods *23001
Tissue Culture, Apparatus, Methods and Media 32500
BC Hominidae 86215
IT Miscellaneous Descriptors
REVIEW HUMAN EMBRYO TRANSFER UTERINE ENVIRONMENT **CRYOPRESERVATION** ASSISTED REPRODUCTIVE TECHNIQUE METHOD

L10 ANSWER 7 OF 14 MEDLINE
AN 90258666 MEDLINE
DN 90258666 PubMed ID: 2699909
TI [Autologous bone marrow transplantation--a new approach in the treatment of neoplastic hematologic diseases. I. Scientific principles and methodology of the treatment].
Transplantacija autologne kostane srzi--novi pristup lijecenju neoplastickih hematoloskih bolesti. I. dio: znanstveni principi i metodologija lijecenja.
AU Nemet D
SO LIJECNICKI VJESNIK, **(1989 Dec)** 111 (12) 466-74. Ref: 99
Journal code: L6C; 0074253. ISSN: 0024-3477.
CY Yugoslavia
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA Serbo-Croatian
FS Priority Journals
EM 199006

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ED Entered STN: 19900720
Last Updated on STN: 19900720
Entered Medline: 19900628
AB This first part of the **review** deals with fundamental knowledge, rationale and methods for the use of autologous bone marrow transplantation in the treatment of neoplastic diseases. Use of high-dose chemo- and radiotherapy in the treatment of neoplastic diseases is limited by side effects on haemopoietic tissues. Bone marrow transplantation offers a possibility to escalate the dose of cytotoxic therapy, but this possibility is limited by two main factors: need for matched allogeneic donor, and patient age below 45 years. This has led to application of autologous BMT for the treatment of older patients and those without compatible marrow donors. Samples of bone marrow collected before intensive myeloablative treatment are stored by means of **cryopreservation**. **Viability** and clonogenicity of stored bone marrow stem cells prior to reinfusion into the patient are tested by in vitro bone marrow culture (usually CFU-GM). Treatment of marrow samples in vitro by monoclonal antibodies and/or cytotoxic drugs are used in order to cleane ("purge") the marrow of residual neoplastic cells.
CT Check Tags: Human
*Bone Marrow Transplantation: MT, methods
Combined Modality Therapy
*Leukemia: SU, surgery
Leukemia: TH, therapy
*Transplantation, Autologous: MT, methods

L10 ANSWER 8 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:368587 BIOSIS
DN BR37:47710
TI **VIABILITY** ASSAYS IN ORGAN PRESERVATION.
AU SOUTHARD J H
CS DEP. SURGERY, UNIV. WISCONSIN, MADISON, WIS. 53792.
SO Cryobiology, (1989) 26 (3), 232-238.
CODEN: CRYBAS. ISSN: 0011-2240.
FS BR; OLD
LA English
CC External Effects - Electric, Magnetic and Gravitational Phenomena *10610
Anatomy and Histology, General and Comparative - Regeneration and Transplantation *11107
Pathology, General and Miscellaneous - Therapy *12512
Temperature: Its Measurement, Effects and Regulation - Cryobiology *23004
BC Hominidae 86215
IT Miscellaneous Descriptors
REVIEW HUMAN TRANSPLANTATION **CRYOPRESERVATION**
. PRESERVATION-INDUCED INJURY

L10 ANSWER 9 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 1
AN 1989:368586 BIOSIS
DN BR37:47709
TI **VIABILITY** ASSAYS FOR PRESERVED CELLS TISSUES AND ORGANS.
AU PEGG D E
CS MRC MED. CRYOBIOL. GROUP, UNIV. DEP. SURGERY, DOUGLAS HOUSE, TRUMPINGTON ROAD, CAMBRIDGE CB2 2AH, UNITED KINGDOM.
SO Cryobiology, (1989) 26 (3), 212-231.

CODEN: CRYBAS. ISSN: 0011-2240.
FS BR; OLD
LA English
CC Microscopy Techniques - Histology and Histochemistry *01056
Microscopy Techniques - Electron Microscopy *01058
Cytology and Cytochemistry - Animal *02506
Biochemical Studies - Proteins, Peptides and Amino Acids 10064
External Effects - Temperature as a Primary Variable - Cold *10616
Enzymes - Physiological Studies *10808
Anatomy and Histology, General and Comparative - Microscopic and Ultramicroscopic Anatomy 11108
Movement 12100
Metabolism - General Metabolism; Metabolic Pathways *13002
Temperature: Its Measurement, Effects and Regulation - General Measurement and Methods 23001
Temperature: Its Measurement, Effects and Regulation - Cryobiology *23004
Developmental Biology - Embryology - Morphogenesis, General *25508
BC Animalia - Unspecified 33000
IT Miscellaneous Descriptors
REVIEW ANIMAL MITOTIC ACTIVITY **CRYOPRESERVATION** EFFICACY PHYSICAL INTEGRITY MECHANICAL MOTILITY METABOLIC ACTIVITY ENZYME ACTIVITY LIGHT MICROSCOPY ELECTRON MICROSCOPY

L10 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2001 ACS
AN 1988:164198 CAPLUS
DN 108:164198
TI Biochemical and functional aspects of recovery of mammalian systems from deep sub-zero temperatures
AU De Loecker, Robert; Penninckx, Freddy
CS Fac. Med., Univ. Leuven, Louvain, B-3000, Belg.
SO Symp. Soc. Exp. Biol. (**1987**), 41(Temp. Anim. Cells), 407-27
CODEN: SSEBA9; ISSN: 0081-1386
DT Journal; General Review
LA English
CC 9-0 (Biochemical Methods)
Section cross-reference(s): 13
AB A **review**, with 113 refs., of the following aspects of **cryopreservation** of mammalian systems at deep sub-zero temps., esp. in the recovery period: preservation of energy prodn., maintenance of the intracellular medium, and assessment of **viability** in various cell types (including blood cells and sperm) and tissues.
ST **review** organ **cryopreservation** mammal; blood **cryopreservation review**; sperm **cryopreservation review**; freezing organ preservation **review**
IT Blood preservation
(by freezing, biochem. and functional aspects of recovery from)
IT Freezing
(mammalian cells and organs preservation by, biochem. and functional aspects of recovery from)
IT Animal cell
(mammalian, preservation of, by freezing, biochem. and functional aspects of recovery from)
IT Organ
(preservation of mammalian, by freezing, biochem. and functional aspects of recovery from)

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IT Sperm
(preservation of, by freezing, biochem. and functional aspects of recovery from)

L10 ANSWER 11 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2
AN 1988:363197 BIOSIS
DN BR35:47810
TI **CRYOPRESERVATION** OF SECONDARY METABOLITE-PRODUCING PLANT CELL CULTURES.
AU KARTHA K K
CS PLANT BIOTECHNOL. INST., NATL. RES. COUNCIL, SASKATOON, SASKATCHEWAN, CAN.
S7N 0W9.
SO CONSTABEL, F. AND I. K. VASIL (ED.). CELL CULTURE AND SOMATIC CELL GENETICS OF PLANTS, VOL. 4. CELL CULTURE IN PHYTOCHEMISTRY. XVI+314P. ACADEMIC PRESS, INC.: SAN DIEGO, CALIFORNIA, USA; LONDON, ENGLAND, UK. ILLUS. (1987) 0 (0), 217-228.
CODEN: CCSPE7. ISBN: 0-12-715004-8.
FS BR; OLD
LA English
CC Cytology and Cytochemistry - Plant *02504
Biochemical Studies - General 10060
External Effects - Temperature as a Primary Variable - Cold *10616
Temperature: Its Measurement, Effects and Regulation - Cryobiology *23004
Tissue Culture, Apparatus, Methods and Media *32500
Plant Physiology, Biochemistry and Biophysics - Temperature *51503
Plant Physiology, Biochemistry and Biophysics - Growth, Differentiation *51510
Plant Physiology, Biochemistry and Biophysics - Chemical Constituents *51522
BC Plantae - Unspecified 11000
IT Miscellaneous Descriptors
REVIEW FREEZING THAWING **VIABILITY** ASSAY

L10 ANSWER 12 OF 14 MEDLINE
AN 92173478 MEDLINE
DN 92173478 PubMed ID: 2979967
TI Measurement of postcryopreservation **viability**.
AU Brockbank K G; Bank H L
CS Department of Pathology, Medical University of South Carolina, Charleston 29425.
NC AM18115 (NIADDK)
SO JOURNAL OF CARDIAC SURGERY, **(1987 Mar)** 2 (1 Suppl) 145-51. Ref: 22
Journal code: BEN; 8908809. ISSN: 0886-0440.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199204
ED Entered STN: 19920424
Last Updated on STN: 19970203
Entered Medline: 19920409
AB For any tissue, there is a cell **viability** threshold below which the ability of the tissue to maintain itself and function will eventually

be compromised. During **cryopreservation** and subsequent thawing of tissues there are many steps involved, each with attendant potential risks for reduction of **viability**. To determine the effectiveness of any **cryopreservation** procedure it is important to select appropriate assays. In this manuscript **viability** assays, in general, are reviewed from a biological viewpoint prior to **review** of methods employed for assessment of heart valve **viability**. Both in situ and in vitro assays of heart valve **viability** indicate that valve mechanical properties and the majority of fibroblasts, which are responsible for maintenance of the valve connective tissue, are retained after **cryopreservation**.

CT Check Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
***Cryopreservation**
Heart Valves: TR, transplantation
*Tissue Preservation
*Tissue Survival

L10 ANSWER 13 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:161533 BIOSIS
DN BR32:79660
TI HYPOTHERMIC PRESERVATION OF SKIN A **REVIEW** OF CURRENT KNOWLEDGE AND APPLICATION.
AU MAY S R
CS SOUTH. BURN RES. INST., AUGUSTA, GA.
SO TWENTY-THIRD ANNUAL MEETING OF THE SOCIETY FOR CRYOBIOLOGY, AUGUSTA, GEORGIA, USA, JUNE 17-20, 1986. CRYOBIOLOGY. (1986) 23 (6), 569-570. CODEN: CRYBAS. ISSN: 0011-2240.
DT Conference
FS BR; OLD
LA English
CC General Biology - Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals 00520
Social Biology; Human Ecology 05500
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines 10062
External Effects - Electric, Magnetic and Gravitational Phenomena 10610
External Effects - Temperature as a Primary Variable - Cold *10616
Anatomy and Histology, General and Comparative - Surgery 11105
Anatomy and Histology, General and Comparative - Regeneration and Transplantation *11107
Pathology, General and Miscellaneous - Therapy 12512
Metabolism - Nucleic Acids, Purines and Pyrimidines 13014
Integumentary System - General; Methods *18501
Integumentary System - Physiology and Biochemistry *18504
Integumentary System - Pathology *18506
Temperature: Its Measurement, Effects and Regulation - General Measurement and Methods 23001
Temperature: Its Measurement, Effects and Regulation - Cryobiology *23004
Temperature: Its Measurement, Effects and Regulation - Hypothermia, Hyperthermia *23006
Public Health - Health Services and Medical Care 37012
BC Hominidae 86215
Muridae 86375
IT Miscellaneous Descriptors
ABSTRACT HUMAN MOUSE **VIABILITY** TESTS WOUND GRAFT USA SKIN BANK ELECTROSTIMULATION ATP **CRYOPRESERVATION**

GCSF-Flt

RN 56-65-5 (ATP)

L10 ANSWER 14 OF 14 MEDLINE
AN 83133484 MEDLINE
DN 83133484 PubMed ID: 6186581
TI **Cryopreservation** of human platelets. General protocols, development of freezing techniques and clinical applications.
AU Herve P
SO HAEMATOLOGIA, **(1982)** 15 (2) 181-200. Ref: 76
Journal code: FY5; 0130266. ISSN: 0017-6559.
CY Hungary
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LA English
FS Priority Journals
EM 198304
ED Entered STN: 19900318
Last Updated on STN: 19980206
Entered Medline: 19830415
AB A **review** is presented of the recent advances in **cryopreservation** of human platelets with particular reference to the technical protocol reported and its development, using either DMSO, glycerol or HES as additives. The methods for assaying **viability** of frozen-thawed platelets are described and the results are reported according to the cryoprotector used. The clinical applications of frozen platelets are discussed with reference to the clinical experience with DMSO and glycerol. An organization scheme for a frozen platelet bank is proposed.
CT Check Tags: Female; Human
Blood Banks: OG, organization & administration
*Blood Platelets
Blood Platelets: TR, transplantation
*Blood Preservation: MT, methods
Chemistry
Dimethyl Sulfoxide
Freezing
Glycerol
Hetastarch
Infant
Time Factors
RN 56-81-5 (Glycerol); 67-68-5 (Dimethyl Sulfoxide); 9005-27-0 (Hetastarch)

=> d hist

(FILE 'HOME' ENTERED AT 14:40:15 ON 18 JUL 2001)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 14:40:33 ON 18 JUL 2001
E CRYOPRESERVE/CT
L1 185 S E4, E6, E5, E7,E9, E11, E12
L2 1 S L1 AND TRANSGENE
L3 1 S L1 AND GENE EXPRESSION
L4 206 S PRESERVED CELLS
L5 145 S L4 AND 1960-1995/PY
L6 3 S L5 AND REVIEW
L7 2473 S VIABILITY AND CRYOPRESERVATION
L8 47 S L7 AND REVIEW
L9 16 S L8 AND 1980-1995/PY

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L10 14 DUPLICATE REMOVE L9 (2 DUPLICATES REMOVED)

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=> d l2 all

L2 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:116066 BIOSIS
DN PREV200000116066
TI Cryopreserved mouse hepatocytes retain regenerative capacity in vivo.
AU Jamal, Hyder Z.; Weglarz, Teresa C.; Sandgren, Eric P. (1)
CS (1) School of Veterinary Medicine, University of Wisconsin-Madison, 2015 Linden Drive West, Madison, WI, 53706 USA
SO Gastroenterology, (Feb., 2000) Vol. 118, No. 2, pp. 390-394. ISSN: 0016-5085.
DT Article
LA English
SL English
AB Background & Aims: Substitution of hepatocyte transplantation for whole liver transplants in selected individuals with liver disease could significantly expand the number of patients to benefit from use of scarce donor livers. However, successful hepatocyte transplantation may require that donor cells retain normal functional and proliferative capabilities and that they be readily available. Banking of cryopreserved hepatocytes would fulfill the latter requirement. Cryopreservation protocols have been developed that minimize hepatocyte injury and allow preservation of metabolic activity. The aim of this study was to assess cryopreserved hepatocyte proliferative capacity in vivo after thawing. Methods: Fresh and frozen/thawed mouse hepatocytes were transferred separately into the livers of recipient mice with **transgene**-induced liver disease, an environment that is permissive for clonal expansion of donor cell populations. Fresh and cryopreserved donor cells were compared for their ability to proliferate and replace damaged parenchyma. Results: Although cryopreservation decreased hepatocyte viability, individual viable frozen/thawed hepatocytes demonstrated clonal replicative potential identical to that of fresh hepatocytes. Even after storage for 32 months in liquid nitrogen, transplanted hepatocytes constituting 0.1% of total adult hepatocyte number could repopulate a mean of 32% of recipient liver parenchyma. Conclusions: These findings suggest that cryopreserved hepatocytes represent an appropriate source of cells for therapeutic hepatocyte transplantation.
CC Digestive System - General; Methods *14001
Anatomy and Histology, General and Comparative - Regeneration and Transplantation *11107
BC Muridae 86375
IT Major Concepts
Digestive System (Ingestion and Assimilation)
IT Parts, Structures, & Systems of Organisms
hepatocyte: cryopreserved, digestive system, proliferative capacity
IT Methods & Equipment
hepatocyte transplantation: surgical method, therapeutic method, transplantation method
IT Miscellaneous Descriptors
in-vivo regenerative capacity

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ORGN Super Taxa
Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
mouse (Muridae)
ORGN Organism Superterms
Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Rodents; Vertebrates

=> d l3 all

L3 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:525413 BIOSIS
DN PREV200000525413
TI Laser capture microdissection: A new method for analysis of the juxtaglomerular apparatus.
AU Benoehr, P. (1); Kurek, R.; Albinus, M. (1); Henkel, V.; Risler, T.; Osswald, H. (1)
CS (1) Department of Pharmacology, University of Tuebingen, Tuebingen Germany
SO Kidney & Blood Pressure Research, (2000) Vol. 23, No. 3-5, pp. 215. print.
Meeting Info.: Congress of Nephrology 2000 Vienna, Austria September 02-05, 2000 Gesellschaft fuer Nephrologie
. ISSN: 1420-4096.
DT Conference
LA English
SL English
CC Biochemical Studies - General *10060
General Biology - Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals *00520
Cytology and Cytochemistry - Animal *02506
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines *10062
Biochemical Studies - Minerals *10069
Enzymes - General and Comparative Studies; Coenzymes *10802
Urinary System and External Secretions - Physiology and Biochemistry *15504
IT Major Concepts
Urinary System (Chemical Coordination and Homeostasis); Methods and Techniques
IT Parts, Structures, & Systems of Organisms
juxtaglomerular apparatus: excretory system, **gene expression** analysis, heterogenous region; juxtaglomerular cells [JGC]: dispersed, excretory system, **gene expression**, isolation, microdissected, renin content, renin mRNA; **kidney**: **cryopreserved, excretory system**; macula densa cells [MDC]: cyclooxygenase-2 mRNA, excretory system, **gene expression**, isolation, microdissected
IT Chemicals & Biochemicals
DNA: genomic differentiation; chloride; cyclooxygenase-2 [COX-2]: enzyme, specific primers; ethidium bromide; mRNA [messenger RNA]; nitrogen; renin: specific primers; sodium; sodium chloride
IT Methods & Equipment
Laser Capture Microdissection [LCM]: analytical method, combination technique, suitability; RT-PCR [reverse transcriptase-polymerase chain reaction]: combination technique, **gene expression** method, polymerase chain reaction
IT Miscellaneous Descriptors

GCSF-Flt

Meeting Abstract
ORGN Super Taxa
Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
rat (Muridae): animal model, depleted
ORGN Organism Superterms
Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Rodents; Vertebrates
RN 16887-00-6 (CHLORIDE)
1239-45-8 (ETHIDIUM BROMIDE)
7727-37-9 (NITROGEN)
9015-94-5 (RENIN)
7440-23-5 (SODIUM)
7647-14-5 (SODIUM CHLORIDE)

=> s greenberger j?/au
L11 762 GREENBERGER J?/AU

=> s l11 and cryopreserv
=> s l11 and cryopreservation
L12 2 L11 AND CRYOPRESERVATION

=> s l11 and cryopreserve
L13 0 L11 AND CRYOPRESERVE

=> d l12 all,1-2

L12 ANSWER 1 OF 2 MEDLINE
AN 97169875 MEDLINE
DN 97169875 PubMed ID: 9017418
TI Systemic delivery of human growth hormone or human factor IX in dogs by reintroduced genetically modified autologous bone marrow stromal cells.
AU Hurwitz D R; Kirchgesser M; Merrill W; Galanopoulos T; McGrath C A; Emami S; Hansen M; Cherington V; Appel J M; Bizinkauskas C B; Brackmann H H; Levine P H; **Greenberger J S**
CS ALG Company, Marlboro, MA 01752, USA.
SO HUMAN GENE THERAPY, (1997 Jan 20) 8 (2) 137-56.
Journal code: A12; 9008950. ISSN: 1043-0342.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199706
ED Entered STN: 19970612
Last Updated on STN: 19970612
Entered Medline: 19970603
AB Canine bone marrow stromal cells were expanded to numbers in excess of 10(9) cells from the initial 10-20 ml of marrow aspirates and transfected to express high levels of human growth hormone (hGH) in vitro. Ex vivo-modified marrow stromal cells were used in a gene therapy model system for the systemic delivery of transgene products in dogs. Adherent bone marrow stromal cell cultures, established and expanded from iliac crest marrow aspirates from each of 8 dogs, were transfected with a hGH gene plasmid expression vector and shown to express from 0.54-3.84 micrograms/10(6) cells per 24 hr hGH in vitro. The transfected plasmid vector does not possess a eukaryotic origin of replication nor does it possess sequences required for efficient integration into the host cell

genome. As such, expression was expected to be transient. Transfected cells were autologously reintroduced into each dog by either infusion into a foreleg vein or directly into iliac crest marrow. In two cases, the stromal cells were cryopreserved following transfection, and subsequently thawed and infused. In one case, the expanded stromal cells were first cryopreserved, and then thawed, recultured, transfected, and infused. Reintroduced cell numbers ranged from 2.2 x 10(7) to 2.6 x 10(9), with total hGH expression capacities ranging from 62 to 1,400 micrograms/24 hr. Plasma of each of the dogs contained detectable hGH for a mean of 3.1 days (SD +/- 0.8 day) ranging from 2 to 5 days following reinfusion of cells. Peak plasma levels ranged from 0.10 to 1.76 ng/ml. Similar hGH expression values, based upon total expression capacity of the cells infused and dog body weight, were obtained for all dogs. Vector-modified stromal cells were detectable, by polymerase chain reaction (PCR) analysis, in the peripheral circulation following reinfusion in all 4 dogs analyzed. In 3 of the dogs, modified stromal cells were detected for 8.5-15 weeks. In addition, modified stromal cells were detected in iliac crest marrow of 2 dogs for 9 and 13 weeks, respectively, following reinfusion. In another experiment, cultured bone marrow stromal cells were transfected with a human factor IX (hFIX) plasmid vector. Modified cells (5.57 x 10(8)), with a total hFIX expression capacity of 281 micrograms/24 hr, were reinfused, resulting in detectable hFIX in plasma continuously for 9 days with a peak level of 8 ng/ml on day 1. These results demonstrate that the ex vivo bone marrow stromal cell system is a potentially powerful method by which to deliver secreted transgene product to the systemic circulation of large animals.

CT Check Tags: Animal; Human
*Bone Marrow: CY, cytology
Bone Marrow: ME, metabolism
Cell Transplantation: MT, methods
Cells, Cultured
Cryopreservation
Dogs
Factor IX: AN, analysis
*Factor IX: GE, genetics
Factor IX: ME, metabolism
*Gene Therapy: MT, methods
Infusions, Intravenous
Somatotropin: AI, antagonists & inhibitors
Somatropin: BL, blood
*Somatropin: GE, genetics
Somatropin: ME, metabolism
Stem Cells: CY, cytology
Stromal Cells: PH, physiology
*Stromal Cells: TR, transplantation
Time Factors
Transfection

RN 12629-01-5 (Somatropin); 9001-28-9 (Factor IX); 9002-72-6 (Somatotropin)

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
AN 1997:491642 CAPLUS
DN 127:92428

GCSF-Flt

TI Methods of preparing bone marrow stromal cells for use in gene therapy
IN **Greenberger, Joel S.**; Hurwitz, David R.
PA Alg Company, USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K048-00
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 1, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9724144	A1	19970710	WO 1995-US16991	19951229
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9647435	A1	19970728	AU 1996-47435	19951229
PRAI	WO 1995-US16991		19951229		

AB This invention relates to sequential methods of cryopreserving bone marrow stromal cells that are transfected and used for gene therapy by transplantation. These methods include the following steps in various orders: obtaining the cells, expanding the cells in culture, transfecting the cells, and cryopreserving the cells. With these methods, populations of bone marrow stromal cells can be acquired that are large enough to be useful in a no. of therapies. Further, these large populations can be stored for extended periods of time for immediate use when needed.

ST bone marrow stroma cell gene therapy
IT Cell adhesion molecules
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(V-LAM, gene encoding, transfection of; prepg. bone marrow stromal cells for use in gene therapy)
IT Blood proteins
Coagulation factors (blood)
Cytokines
Enzymes, biological studies
Growth factors (animal)
Hormones (animal), biological studies
ICAM-1 (cell adhesion molecule)
Lymphokines
N-CAM (cell adhesion molecule)
Neurotransmitters
Peptides, biological studies
VCAM-1 (cell adhesion molecule)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene encoding, transfection of; prepg. bone marrow stromal cells for use in gene therapy)
IT Proteins (specific proteins and subclasses)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lipid-binding, gene encoding, transfection of; prepg. bone marrow stromal cells for use in gene therapy)
IT **Cryopreservation**
Gene therapy

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Preservation
Tissue culture (animal)
Transformation (genetic)
(prepg. bone marrow stromal cells for use in gene therapy)
IT Bone marrow
(stroma; prepg. bone marrow stromal cells for use in gene therapy)
IT 9001-28-9, Factor ix 12629-01-5, Human growth hormone 113189-02-9, Factor viii
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene encoding, transfection of; prepg. bone marrow stromal cells for use in gene therapy)

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	68.11	68.26

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.76	-1.76

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